INTERNATIONAL STANDARD

ISO 4206

Second edition
1991-12-15

Counterbores with parallel shanks and solid pilots

Outils à lamer, à queue cylindrique et pilote fixe

Reference number
ISO 4206:1991(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 4206 was prepared by Technical Committee ISO/TC 29, *Small tools*, Sub-Committee SC 2, *Drills and reamers*.

This second edition cancels and replaces the first edition (ISO 4206:1977), of which it constitutes a technical revision.

Annex A of this International Standard is for information only.

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Counterbores with parallel shanks and solid pilots

1 Scope

This International Standard specifies the dimensions, in millimetres, and the tolerances of counterbores with parallel shanks and solid pilots for general use.

2 Normative reference

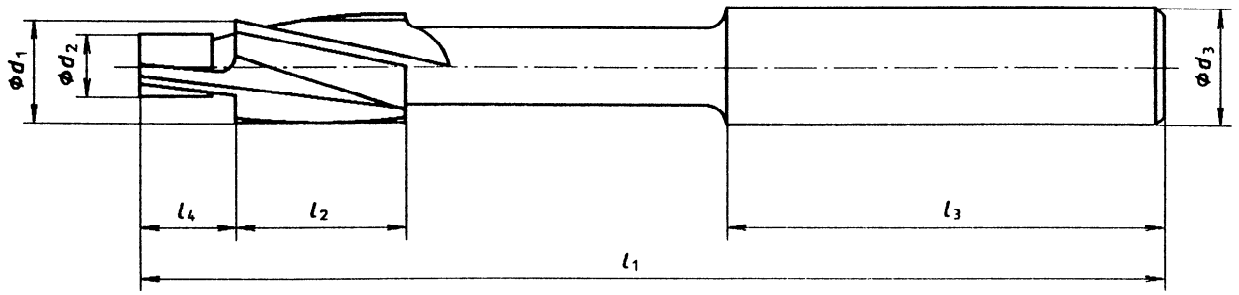
The following standard contains provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 286-2:1988, *ISO system of limits and fits — Part 2: Tables of standard tolerance grades and limit deviations for holes and shafts.*

3 Dimensions

The dimensions and tolerances are shown in figure 1 and given in table 1.

NOTE 1 Figure 1 illustrating this International Standard is diagrammatic only. It is not intended to show details of design.



NOTE — This figure shows a counterbore with cutting diameter d_1 greater than 5 mm.

Figure 1

Table 1

Cutting diameter d_1 z9[1]	**Pilot diameter** d_2 e8[1]	**Shank diameter** d_3 h9[1]	l_1	l_2	l_3 ≈	l_4
$2 \leqslant d_1 \leqslant 3{,}15$	Diameter to be specified to suit pilot hole diameter, when ordering (minimum possible diameter is $d_2 = 1/3\ d_1$)	$= d_1$	45	7	—	≈ d_2
$3{,}15 < d_1 \leqslant 5$			56	10		
$5 < d_1 \leqslant 8$			71	14	31,5	
$8 < d_1 \leqslant 10$			80	18	35,5	
$10 < d_1 \leqslant 12{,}5$		10				
$12{,}5 < d_1 \leqslant 20$		12,5	100	22	40	

1) See ISO 286-2.

Annex A
(informative)

Bibliography

[1] ISO 4205:1991, *Countersinks, 90 degrees, with parallel shanks and solid pilots.*

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